

Tabela com valores do fator de atrito de Darcy-Weisbach f (adimensional) em função da relação entre o diâmetro interno e a vazão D/Q (s/m^2) e da relação entre a rugosidade equivalente e o diâmetro interno k/D (adimensional) em escoamentos em tubos de seção circular, de acordo com a equação de Colebrook-White, escoando água à 20 °C.

k/D	D/Q (s/m^2)																													
	0.010	0.100	0.200	0.300	0.500	0.750	0.850	1.000	1.250	1.500	2.000	2.500	3.000	4.000	5.000	6.000	7.500	9.000	10.00	12.50	15.00	17.50	20.00	25.00	30.00					
0.0000000	0.0058	0.0078	0.0087	0.0092	0.0100	0.0107	0.0109	0.0112	0.0116	0.0120	0.0126	0.0131	0.0136	0.0143	0.0149	0.0155	0.0162	0.0168	0.0171	0.0179	0.0186	0.0192	0.0198	0.0208	0.0217					
0.0000297	0.0097	0.0100	0.0103	0.0106	0.0110	0.0115	0.0117	0.0119	0.0122	0.0126	0.0131	0.0135	0.0139	0.0146	0.0152	0.0157	0.0164	0.0169	0.0173	0.0181	0.0188	0.0194	0.0199	0.0209	0.0218					
0.0000595	0.0109	0.0111	0.0113	0.0115	0.0118	0.0122	0.0123	0.0125	0.0128	0.0130	0.0135	0.0139	0.0143	0.0149	0.0155	0.0159	0.0166	0.0171	0.0175	0.0182	0.0189	0.0195	0.0201	0.0210	0.0219					
0.0000892	0.0117	0.0119	0.0120	0.0122	0.0124	0.0127	0.0129	0.0130	0.0133	0.0135	0.0139	0.0143	0.0146	0.0152	0.0157	0.0162	0.0168	0.0173	0.0177	0.0184	0.0190	0.0196	0.0202	0.0211	0.0220					
0.0001190	0.0124	0.0125	0.0126	0.0128	0.0130	0.0132	0.0133	0.0135	0.0137	0.0139	0.0143	0.0146	0.0149	0.0155	0.0160	0.0164	0.0170	0.0175	0.0178	0.0185	0.0192	0.0198	0.0203	0.0212	0.0221					
0.0001487	0.0129	0.0130	0.0131	0.0132	0.0134	0.0137	0.0138	0.0139	0.0141	0.0143	0.0146	0.0149	0.0152	0.0157	0.0162	0.0166	0.0172	0.0177	0.0180	0.0187	0.0193	0.0199	0.0204	0.0213	0.0222					
0.0001785	0.0134	0.0135	0.0136	0.0137	0.0139	0.0141	0.0141	0.0142	0.0144	0.0146	0.0149	0.0152	0.0155	0.0160	0.0164	0.0168	0.0174	0.0179	0.0182	0.0188	0.0195	0.0200	0.0205	0.0214	0.0222					
0.0002082	0.0138	0.0139	0.0140	0.0141	0.0142	0.0144	0.0145	0.0146	0.0148	0.0149	0.0152	0.0155	0.0157	0.0162	0.0166	0.0170	0.0175	0.0180	0.0183	0.0190	0.0196	0.0201	0.0206	0.0215	0.0223					
0.0002380	0.0142	0.0143	0.0144	0.0144	0.0146	0.0148	0.0148	0.0149	0.0151	0.0152	0.0155	0.0157	0.0160	0.0164	0.0168	0.0172	0.0177	0.0182	0.0185	0.0191	0.0197	0.0203	0.0207	0.0216	0.0224					
0.0002677	0.0146	0.0146	0.0147	0.0148	0.0149	0.0151	0.0151	0.0152	0.0154	0.0155	0.0157	0.0160	0.0162	0.0167	0.0170	0.0174	0.0179	0.0183	0.0186	0.0193	0.0198	0.0204	0.0209	0.0217	0.0225					
0.0002975	0.0149	0.0150	0.0150	0.0151	0.0152	0.0154	0.0154	0.0155	0.0156	0.0158	0.0160	0.0162	0.0165	0.0169	0.0172	0.0176	0.0181	0.0185	0.0188	0.0194	0.0200	0.0205	0.0210	0.0218	0.0226					
0.0003272	0.0152	0.0153	0.0153	0.0154	0.0155	0.0156	0.0157	0.0158	0.0159	0.0160	0.0162	0.0165	0.0167	0.0171	0.0174	0.0178	0.0182	0.0187	0.0189	0.0195	0.0201	0.0206	0.0211	0.0219	0.0227					
0.0003570	0.0155	0.0156	0.0156	0.0157	0.0158	0.0159	0.0159	0.0160	0.0161	0.0162	0.0165	0.0167	0.0169	0.0173	0.0176	0.0179	0.0184	0.0188	0.0191	0.0197	0.0202	0.0207	0.0212	0.0220	0.0228					
0.0003867	0.0158	0.0158	0.0159	0.0159	0.0160	0.0161	0.0162	0.0163	0.0164	0.0165	0.0166	0.0167	0.0169	0.0171	0.0175	0.0178	0.0181	0.0185	0.0190	0.0192	0.0198	0.0203	0.0208	0.0213	0.0221					
0.0004165	0.0160	0.0161	0.0161	0.0162	0.0163	0.0164	0.0164	0.0165	0.0166	0.0167	0.0169	0.0171	0.0173	0.0176	0.0180	0.0183	0.0187	0.0191	0.0193	0.0199	0.0205	0.0209	0.0214	0.0222	0.0230					
0.0004462	0.0163	0.0163	0.0164	0.0164	0.0165	0.0166	0.0167	0.0167	0.0168	0.0169	0.0171	0.0173	0.0175	0.0178	0.0181	0.0184	0.0189	0.0192	0.0195	0.0201	0.0206	0.0211	0.0215	0.0223	0.0231					
0.0004760	0.0165	0.0166	0.0166	0.0166	0.0167	0.0168	0.0169	0.0169	0.0170	0.0171	0.0173	0.0175	0.0177	0.0180	0.0183	0.0186	0.0190	0.0194	0.0196	0.0202	0.0207	0.0212	0.0216	0.0224	0.0231					
0.0005057	0.0167	0.0168	0.0168	0.0169	0.0169	0.0170	0.0171	0.0171	0.0172	0.0173	0.0175	0.0177	0.0179	0.0182	0.0185	0.0188	0.0192	0.0195	0.0199	0.0205	0.0210	0.0215	0.0221	0.0229	0.0237					
0.0005355	0.0170	0.0170	0.0170	0.0171	0.0172	0.0172	0.0173	0.0173	0.0174	0.0175	0.0177	0.0179	0.0180	0.0183	0.0186	0.0190	0.0193	0.0197	0.0199	0.0204	0.0209	0.0214	0.0218	0.0226	0.0233					
0.0005652	0.0172	0.0172	0.0172	0.0173	0.0174	0.0174	0.0175	0.0175	0.0176	0.0177	0.0179	0.0180	0.0182	0.0185	0.0188	0.0190	0.0194	0.0198	0.0200	0.0205	0.0210	0.0215	0.0219	0.0227	0.0234					
0.0005950	0.0174	0.0174	0.0174	0.0175	0.0175	0.0176	0.0177	0.0177	0.0178	0.0179	0.0181	0.0182	0.0184	0.0187	0.0189	0.0192	0.0196	0.0199	0.0201	0.0207	0.0211	0.0216	0.0220	0.0228	0.0235					
0.0006247	0.0176	0.0176	0.0176	0.0177	0.0177	0.0178	0.0179	0.0179	0.0180	0.0181	0.0182	0.0184	0.0185	0.0188	0.0191	0.0193	0.0197	0.0200	0.0203	0.0208	0.0212	0.0217	0.0221	0.0229	0.0236					
0.0006545	0.0178	0.0178	0.0178	0.0179	0.0179	0.0180	0.0180	0.0181	0.0182	0.0182	0.0184	0.0185	0.0187	0.0190	0.0192	0.0195	0.0198	0.0202	0.0204	0.0209	0.0214	0.0218	0.0222	0.0230	0.0237					
0.0006842	0.0179	0.0180	0.0180	0.0180	0.0181	0.0182	0.0182	0.0183	0.0183	0.0184	0.0186	0.0187	0.0188	0.0191	0.0194	0.0196	0.0200	0.0203	0.0205	0.0210	0.0215	0.0219	0.0223	0.0231	0.0237					
0.0007140	0.0181	0.0181	0.0182	0.0182	0.0183	0.0184	0.0184	0.0184	0.0185	0.0186	0.0187	0.0189	0.0190	0.0193	0.0195	0.0198	0.0201	0.0204	0.0206	0.0211	0.0216	0.0220	0.0224	0.0231	0.0238					
0.0007437	0.0183	0.0183	0.0184	0.0184	0.0184	0.0185	0.0185	0.0186	0.0187	0.0187	0.0189	0.0190	0.0191	0.0194	0.0197	0.0199	0.0202	0.0205	0.0207	0.0212	0.0217	0.0221	0.0225	0.0232	0.0239					
0.0007735	0.0185	0.0185	0.0185	0.0185	0.0186	0.0187	0.0187	0.0188	0.0188	0.0189	0.0190	0.0192	0.0193	0.0195	0.0198	0.0200	0.0203	0.0207	0.0209	0.0213	0.0218	0.0222	0.0226	0.0233	0.0240					
0.0008032	0.0186	0.0187	0.0187	0.0187	0.0188	0.0188	0.0189	0.0189	0.0190	0.0190	0.0192	0.0193	0.0194	0.0197	0.0199	0.0201	0.0205	0.0208	0.0210	0.0214	0.0219	0.0223	0.0227	0.0234	0.0241					
0.0008330	0.0188	0.0188	0.0188	0.0189	0.0189	0.0190	0.0190	0.0191	0.0191	0.0192	0.0193	0.0195	0.0196	0.0198	0.0201	0.0203	0.0206	0.0209	0.0211	0.0216	0.0220	0.0224	0.0228	0.0235	0.0241					
0.0008627	0.0189	0.0190	0.0190	0.0190	0.0191	0.0191	0.0192	0.0192	0.0193	0.0193	0.0195	0.0196	0.0197	0.0200	0.0202	0.0204	0.0207	0.0209	0.0212	0.0217	0.0221	0.0225	0.0229	0.0236	0.0242					
0.0008925	0.0191	0.0191	0.0192	0.0192	0.0192	0.0193	0.0193	0.0194	0.0194	0.0195	0.0196	0.0197	0.0199	0.0201	0.0203	0.0205	0.0208	0.0211	0.0213	0.0218	0.0222	0.0226	0.0230	0.0237	0.0243					
0.0009222	0.0193	0.0193	0.0193	0.0193	0.0194	0.0194	0.0195	0.0195	0.0196	0.0196	0.0198	0.0199	0.0200	0.0202	0.0204	0.0206	0.0209	0.0212	0.0214	0.0219	0.0223	0.0227	0.0230	0.0237	0.0244					
0.0009520	0.0194	0.0194	0.0194	0.0195	0.0195	0.0196	0.0196	0.0197	0.0197	0.0198	0.0199	0.0200	0.0201	0.0203	0.0206	0.0208	0.0211	0.0213	0.0215	0.0220	0.0224	0.0228	0.0231	0.0238	0.0245					
0.0009817	0.0195	0.0196	0.0196	0.0196	0.0197	0.0197	0.0198	0.0198	0.0199	0.0199	0.0200	0.0201	0.0203	0.0205	0.0207	0.0209	0.0212	0.0215	0.0216	0.0221	0.0225	0.0229	0.0232	0.0239	0.0245					
0.0010115	0.0197	0.0197	0.0197	0.0198	0.0198	0.0199	0.0199	0.0199	0.0200	0.0200	0.0202	0.0203	0.0204	0.0206	0.0208	0.0210	0.0213	0.0216	0.0217	0.0222	0.0226	0.0230	0.0233	0.0240	0.0246					
0.0010412	0.0198	0.0198	0.0199	0.0199	0.0199	0.0200	0.0200	0.0201	0.0201	0.0202	0.0203	0.0204	0.0205	0.0207	0.0209	0.0211	0.0214	0.0217	0.0219	0.0223	0.0227	0.0230	0.0234	0.0241	0.0247					
0.0010710	0.0200	0.0200	0.0200	0.0200	0.0201	0.0201	0.0202	0.0202	0.0203	0.0203	0.0204	0.0205	0.0206	0.0208	0.0210	0.0212	0.0215	0.0218	0.0220	0.0224	0.0228	0.0231	0.0235	0.0242	0.0248					
0.0011008	0.0201	0.0201	0.0201	0.0202	0.0202	0.0203	0.0203	0.0203	0.0204	0.0204	0.0205	0.0206	0.0208	0.0210	0.0212	0.0213	0.0216	0.0219	0.0221	0.0225	0.0229	0.0232	0.0236	0.0242	0.0248					
0.0011305	0.0202	0.0203	0.0203	0.0203	0.0203	0.0204	0.0204	0.0205	0.0205	0.0206	0.0207	0.0208	0.0209	0.0211	0.0213	0.0215	0.0217	0.0220	0.0222	0.0226	0.0229	0.0233	0.0237	0.0243	0.0249					
0.0011603	0.0204	0.0204	0.0204	0.0204	0.0205	0.0205	0.0205	0.0206	0.0206	0.0207	0.0208	0.0209	0.0210	0.0212	0.0214	0.0216	0.0218	0.0221	0.0223	0.0227	0.0230	0.0234	0.0237	0.0244	0.0250					
0.0011900	0.0205	0.0205	0.0205	0.0206	0.0206	0.0207	0.0207	0.0207	0.0208	0.0208																				